

Claims

1. A method for determination of sharpness of a chopping unit including a chopping drum mounted for rotation in a bearing and carrying chopping blades which work against a counterblade mounted to a support, especially for the determination of the change in state of sharpness of the chopping blade between at least two points in time, comprising the steps of:
 - a. making at least two measurements of a characteristic parameter of an operating oscillation induced in one of said chopping blade and counterblade;
 - b. determining a ratio of fractions of said oscillation at at least two frequency bands of the measured signal or its peak for each of said two measurements, and;
 - c. evaluating a change in said ratio between said two measurements.
2. The method, as defined in claim 1, wherein:
 - a. a first of said at least two measurements is made when said chopping blades are sharp and is followed by an analysis of the fractions of at least two frequency regions of the measured signal;
 - b. a second said two measurements is made after a pre-selected interval determined by one of duration or revolutions of the chopping drum, that is greater than or equal to zero, and measurement analysis of the fractions of the same frequency regions as are in step (a) of said measurement signal; and
 - c. determining a reference value from analysis of said results of steps (a) and (b) by one of, forming a difference or a quotient, or by using a weighting function on the second measurement, recovered from the first measurement;
 - d. comparing said reference value determined in step (c) with a selectable stipulated value, with a return to step (b) when this stipulated value is fallen short of; and
 - e. triggering an event responsive to the comparison made in step (d) when the stipulated value is equaled or exceeded.
3. The method as defined in claim 1 wherein said analysis of said characteristic parameter occurs in the time or frequency region.
4. The method as defined in claim 1 wherein said characteristic parameter is an acceleration, an elongation or an acoustic pressure.
5. The method, as defined in claim 1, wherein said characteristic parameter is measured on one of said counterblade, counterblade support, on one or more chopping blades, on said chopping drum or on said chopping drum bearing.